ON A COLLECTION OF BIRDS MADE BY MR. F. SHAW MAYER IN THE WEYLAND MOUNTAINS, DUTCH NEW GUINEA, IN 1930.

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(Plates III and IV.)

MR. SHAW MAYER undertook this collecting trip in the interests of the American Museum of Natural History and the Tring Museum. He succeeded in getting together a very fine collection of mammals, which will be treated of in another article, and the very interesting lot of birds dealt with in the present paper. This collections of birds, though lacking in many of the smaller *Passeres*, contains several novelties, as well as important specimens which clear up certain doubtful points.

The collection was made in the Gebroeders Range, north of the main chain of the Weyland Mts., and on the way up the Siriwo River. Mts. Gebroeders, Derimapa, Sorong, Dewera and Atoe form part of the Range of the Gebroeders.

1. **Chlamydera lauterbachi uniformis** subsp. nov.

Till we unpacked Shaw Mayer's birds it was looked upon as practically certain that the ♀ obtained by the Goodfellow expedition on the Ramura River and the Merauke examples were the ♀♀ of *Chl. lauterbachi*; but the two birds in the present collection are apparently sexed correctly as ♂ and ♀ and consequently are a distinct S. Western subspecies of *lauterbachi* from N.E. New Guinea, and I propose the name of *Chl. lauterbachi uniformis* for them, and the Ramura and Merauke examples.

♂. Differs from *Chl. l. lauterbachi* in the head, cheeks and hindneck being yellowish olive brown, not fiery orange on the head and cheeks and golden olive on hindneck; rest of upperside deeper brown, with more dusky olive edges and tips, not brown, edged distinctly with golden olive; rump more distinctly olive, not brown edged with gold; chin, throat and upper breast less bright yellow and feathers more widely edged with olive brown. Rest of underside bright golden yellow as in *Chl. l. lauterbachi*. Wing 129 mm.; bill 24 mm.; tarsus 34 mm.; tail 115 mm.

♀ similar, but slightly duskier above and more buffy yellow below. Wing 124 mm.

♂♀ bill black; iris dark brown; naked space behind eye dark grey; feet grey. Contents of stomach remains of insects.

Shot at bower; the latter is like the bower of *Ptilonorhynchus violaceus* of Queensland, but without any decorations. The construction and courtship in the bower, together with the swelling ovary and testes prove that this is an adult pair.

Type ♂ No. 22.

♂ and ♀, 15 June 1930, shot at bower, Siriwo River, 45 miles above mouth, S. of Geelvink Bay.

2. Xanthomelus aureus aureus (Linn.).

Coracias aureus Linnaeus, *Syst. Nat.* ed. x, p. 108 (1758) (Asia ! ex Edwards, pl. 112).

1 ♂ ad. Mt. Derimapa, 5,000 ft., 12 July 1930. Iris greenish yellow, feet olive brown, bill black, basal portion horn brown.

1 ♂ ad. Gebroeders, 4,000 ft., 25 July 1930. Iris yellow.

This is a new locality for the species, and one would have expected an intermediate form between this and *aureus ardens*, but both ♂♂ are quite typical. Contents of stomach berries and insects.

3. Amblyornis inornatus mayri Hartert.

Amblyornis inornatus mayri Hartert, *Nov. Zool.* xxxvi, p. 30 (1930) (Karon ; = ? Karoon).

Dr. Hartert, when describing *A. in. mayri*, only applied the name to the trade skins distributed by Renesse Van Duivenbode, saying that in colour he could not separate the Snow Mts. and Weyland Mts. birds from *A. in. musgravei*. Now, in comparing these birds, Arthur Goodson pointed out to me that, like *Pteridophora alberti*, in which fresh Goliath Mt. and Weyland Mts. birds had the buffy yellow breast much paler and more yellow, while the trade skins of Duivenbode had the breast more rusty and darker buff, the rufous foxy colour was confined to trade skins and evidently was due to the birds being dried over smoky fires. The Weyland Mts. birds agree very closely with one of Duivenbode's skins (evidently *not* smoke dried) in the general more olive coloration. In coloration the only difference I can find is the buff chin in *A. in. mayri* and the olive chin in *A. in. musgravei*. On the other hand, a striking difference is the length of the crest which is much longer in *A. in. mayri*. I therefore confine the name of *A. in. musgravei* to the birds from S.E. New Guinea, while I include under *A. in. mayri* all the trade skins and those from the Snow and Weyland Mts.

The present series consists of 5 crested ♂♂, 2 ♂♂ without crests and a ♀. All these in the ♂♂ show a darker, more uniform olive underside and darker, less rufous tail and back than the ♂♀ collected on Mt. Kunupi, Weyland Mts., by the Pratt brothers in 1920, except one ♂ No. 121, which has the underside more rufous ; this is no doubt due to their being more freshly moulted.

5 ♂♂ ad., 2 ♂♂ jun., 1 ♀ ad. Gebroeders, 6,000 ft., 25, 26, 29 June, 2 July, 1 August 1930. Iris brown, upper mandible dark brown to black, lower mandible horn colour, feet olive grey, lead grey or blackish grey. Contents of stomach fruits.

Crest *A. in. musgravei* 64 mm. ; *A. in. mayri* 99 mm.

4. Loboparadisea sericea sericea Rothsch.

Loboparadisea sericea Rothschild, *Bull. B.O.C.* vi, p. xvi (1896) (Trade skins).

Mr. Shaw Mayer obtained 1 adult ♂, and 1 ♀ with a few brown cloudings on the breast, the remains of juvenile plumage .

1 ♂ ad., 1 ♀ juv. Gebroeders, 6,000–7,000 ft., 1 July and 16 August 1930. Bill and feet black, wattle over bill green. Contents of stomach fruits. The ♀ has no bill wattles.

This wonderful bird must now be treated trinomially, as Dr. Ernst Mayr discovered a new subspecies of it in N.E. New Guinea.

5. **Loria loriae** Salvad.

Loria loriae Salvadori, *Ann. Mus. Civ. Gen.* xxxiv, p. 151 (1894) (Moroka).

The present series of 2 adult ♂♂, 1 ♂ juv. and 1 ♀ show no differences from examples from different parts of New Guinea.

2 ♂♂ ad., 1 ♂ juv., 1 ♀ ad. Gebroeders, 6,000–7,000 ft., 26 June, 4 and 24 July 1930. Contents of stomach large berries. The ♂ juv. above is darker than the ♀, the olive green being more suffused with brown.

6. **Paradigalla carunculata brevicauda** Rothsch. & Hart.

Paradigalla brevicauda Rothschild & Hartert, *Nov. Zool.* xx, p. 523 (1913) (Mt. Goliath).

Dr. Ernst Mayr considers this bird a subspecies of *P. carunculata* Less., and I quite agree with him. At first sight the short tail in the adult and different shaped wattles give *brevicauda* a very different appearance, but the much longer tail in the young bird proves that the short tail is a later acquired character, and as they replace one another absolutely geographically I feel that there is no doubt of their being geographical races of a single species.

2 ♂♂ ad., 1 ♀ ad., 4 ♂♂ juv., 1 ♂, 1 ♀ juv. Gebroeders, 6,000 ft., 29 June, 2, 4, 8, 14, 17, 21, 22 July, 15, 17 August 1930. Iris black brown, bill black, feet grey black. Contents of stomach fruits.

7. **Parotia carolae carolae** A. B. Meyer.

Parotia carolae A. B. Meyer, *Bull. B.O.C.* iv, p. 6 (1894) (Trade skins).

Dr. Stresemann has objected to my making 3 species out of the birds included in *Parotia*, viz. *P. sefilata* with the subspecies *lawesi* and *helenae*; *P. carolae* with the subspecies *meeki* and *berlepschi*; and *P. wahnesi* as a species by itself. He says *lawesi* and *helenae* are genetically as widely separated from *sefilata* as *carolae* and *wahnesi*. I cannot quite follow this line, especially as he acknowledges, by treating *sefilata* as a species, 4 distinct species. I myself think Dr. Ernst Mayr's suggestion that all seven forms of *Parotia* are geographical races of a single species, is much more logical, and I am only here treating *carolae* and its two subspecies as a separate species for the time being, as I am uncertain whether these white-flanked forms developed directly from *helenae*, or from *helenae* through *wahnesi*.

6 ♂♂ ad., 5 ♂♂ juv., 3 ♀♀ ad. Gebroeders 6,000 ft., 25, 28, 30 June, 15, 17, 19, 31 July, 6, 11, 14, 17, 18 August 1930. ♂: Iris greenish yellow flecked with red, bill and feet black; ♀: Iris paler, more whitish, feet greyish black. Contents of stomach fruits.

Apparently, judging from the large series of trade skins of *carolae* in the Tring Museum and this fine series from Shaw Mayer, the young ♂ begins to change into the adult plumage on the head and gradually by a series of annual moults puts on the final adult dress. This appears to be the normal procedure among the *Paradisacidae*; but in many of the other genera odd adult feathers or patches of feathers appear elsewhere, as well as on the head and neck, though this may be due to premature loss of juvenile feathering.

8. **Lophorina superba feminina** O. Grant.

Lophorina superba feminina O. Grant, *Jnl. Suppl. Ibis*, 1915, p. 27 (Utakwa River).

A single ♂ is in the collection ; 2 ♀♀ were in the brothers Pratt's collection from the Weyland Mts. and 1 ♀ from the Snow Mts. ; all these 3 ♀♀ have the head very different from those of *L. s. minor*, *L. s. superba* and *L. s. latipennis*. The ♀ of *s. superba* has the entire head of a uniform black brown, as has the ♀ *s. latipennis* ; the ♀ of *s. minor* has the head black, forehead with distinct sprinkling of white, black-edged feathers on forehead, and an irregular band from above the eye meeting as collar at hindneck greyish white ; the ♀ *s. feminina* has the head brown, forehead white, each feather edged with black ; the central shaftlines on top of head golden, sometimes widening into a larger golden patch ; hindneck and lateral bands whitish and dark buff. The ♀ *feminina* has underside brownish buff, the other 3 subspecies have the undersides grey.

1 ♂ Gebroeders, 6,000–7,000 ft., 2 August 1930. Iris brownish black, bill and feet black. Contents of stomach fruits. Native (Yabi) name " Kera."

9. **Pteridophora alberti alberti** A. B. Meyer.

Pteridophora alberti A. B. Meyer, *Bull. B.O.C.* iv, p. xi (1894) (Mts. near Ambernok River).

Shaw Mayer sent 3 adult and 1 young ♂, which agree perfectly with the series obtained on the Weyland Range by the brothers Pratt and with the trade skins imported by Renesse van Duivenbode. In view of the differences in the ♀♀ of subspecies of *Lophorina* I am taking the " bull by the horns " and giving a name to the form collected by Dr. Bürgers on the Schrader Berg.

3 ♂♂ ad. (one with broken plume), 1 ♂ juv. Gebroeders, 6,000 ft., 3, 9, 15, 21 July 1930. Iris brown, bill black, feet grey brown.

Native Yabi name " Petre." The natives report the *Pteridophora* as dancing on a vine, the two plumes being raised above the head forming an angle of 45°. The head is continually bowed forward, and the bird makes a hissing noise. Contents of stomach fruits.

[*Pteridophora alberti bürgersi* subsp. nov.

Only known from ♀♀.

♀ differs from *Pt. a. alberti* ♀ above in being browner, less grey brown ; the throat is suffused with buffy yellow, and the dark markings of the throat are much less distinct, more obsolete ; rest of underside suffused with buff, NOT almost pure white ; the crescentic black marks and bands on the feathers much shorter, not reaching the lateral margins of the feathers at all.

♀ type No. 2064 Shrader Berg, Sepik River district, 6 July 1913 (Dr. Bürgers).]

10. **Epimachus meyeri albicans** (Van Oort).

Falcinellus meyeri albicans Van Oort, *Zool. Meded.* i, p. 228 (1915) (Treub Mts.).

The adult and young ♂ and the adult ♀ sent by Shaw Mayer are most welcome, as they finally decide that there are two species of *Epimachus* occurring side by side in New Guinea west of the Fly River. The typical birds in the Leyden Museum were collected at Treub Camp (2,366 m. = 7,690 ft.), Treub Mts., 30 January and 8 March 1913, by C. Versteeg (Nos. 497 and 630) much farther east than the present locality ; in addition to these, there are in the Leyden

Museum some native "trade" skins, and one legless "trade" skin at Tring brought back by the Pratts from the Weyland Mts., and this was all we knew till the present skins came to hand. As we now have 3 examples killed in the same place as 3 examples of *Epimachus fastosus atratus* Rothsch. & Hart. we must treat *E. meyeri* and *E. m. albicans* as a distinct species occurring alongside *E. fastosus*, *E. fastosus atratus*, and *E. f. stresemanni*. The brothers Pratt assured us in 1921, when they brought the collections from Mt. Kunupi, Weyland Mts., that, although the skin of *E. m. albicans* was a native "Trade" skin, it had been killed in the Weyland Range; but I could not believe this and continued to regard the forms *E. meyeri* and *E. m. albicans* as not yet proved absolutely of a distinct species from *E. fastosus* and its subspecies. The present series, however, settles all doubts; although Shaw Mayer has only sent 1 young ♂ and 2 ♀♀ of *E. f. atratus*, the large series of 13 adult and young ♂♂ and 6 ♀♀ sent by the Pratts must convince everyone that both *f. atratus* and *m. albicans* occur habitually together. The adult ♂♂ are easily distinguished, as the flank plumes are very different in colour and much more plumose, while the bill is much longer, more curved and considerably slenderer. The ♀♀ of *fastosus*, however, do not show so pronounced differences in the bill; but whereas the ♀ *fastosus* has a large amount of bright chestnut on the wings, in ♀ *meyeri* the wings are entirely olive brown. The underside of the ♀♀ of the two *meyeri* forms are more or less suffused with rusty buff, while in the *fastosus* forms the underside has the ground colour white. In the ♂♂ of the two *meyeri* forms there are on the outside of the flank plumes some curious curved brownish feathers more united in the plumules; and the ornamental plumes are much smaller than in *fastosus* (cf. Plates III and IV).

1 ♂ ad., 1 ♂ jun., 1 ♀ juv. Gebroeders, 6,000–7,000 ft., 22, 24, 28 July 1930. Contents of stomach ad. ♂ fruits and a few insects; ♂ juv. and ♀ juv. berries. Iris whitish, bill black, feet blackish grey, olive grey, and dark grey.

Native Yabi name "Deawa."

11. **Epimachus fastosus atratus** (Rothsch. & Hart.).

Falcinellus striatus atratus Rothschild & Hartert, *Nov. Zool.* xviii, p. 160 (1911) (Mt. Goliath, 5,000 ft. and over).

Shaw Mayer only succeeded in getting 1 ♂ juv. and 2 ♀♀, but enough to prove that *fastosus* occurs together with *meyeri* at 6,000–7,000 feet on the Gebroeders.

1 ♂ juv., 2 ♀♀ ad. Gebroeders, 6,000–7,000 ft., 17 July and 17 August 1930. Iris grey, bill black, feet dark grey and bluish black. Contents of stomach ♂ juv. small pandanus fruit and a large grasshopper, ♀♀ cockroaches and other large insects.

Native Yabi name "Deawa."

12. **Astrapia splendidissima** Rothsch.

Astrapia splendidissima Rothschild, *Nov. Zool.* ii, p. 59, pl. v (1895) (Trade skin).

The young ♂♂ show no signs whatever of rufous on the hindneck, but the females have all a more or less prominent dark rufous band on the hindneck.

7 ♂♂ ad. (4 in full moult), 4 ♂♂ juv. (3 with tail moulting), 11 ♀♀ ad. Gebroeders, 6,000 ft., 27, 29 June, 1, 2, 3, 4, 6, 7, 10, 20, 21, 22, 26 July 1930.

Iris blackish, bill black, feet grey. Contents of stomach small fruits and berries.

Native Yabi name " Erei."

13. Cicinnurus regius claudii O. Grant.

Cicinnurus regius claudii Ogilvie Grant, *Jnb. Suppl. Ibis*, 1915, p. 16 (Parimau, Mimika River).

1 ♀ Lagare River, 16 miles above mouth, S. of Geelvink Bay. Iris brown, bill horn colour, feet blue.

14. Diphyllodes magnificus chrysopterus Elliot.

Diphyllodes speciosa var. *chrysoptera* Elliot (ex Gould MS.), *Mon. Paradis.* text to pl. 13 (1873) (loc. ign.).

When Dr. Hartert named the bird from the southern slopes of the Snow Mts. *D. m. intermedius* we associated with it a skin obtained by the Pratt brothers in the Wanggar District, south of Geelvink Bay, although it was more brightly coloured ; but Shaw Mayer having sent 5 adult ♂♂, 1 ♂ juv. and 2 ♀♀ from Mt. Derimapa, Weyland Range, from 4,000–5,000 ft., I think there is no doubt that the Wanggar bird is identical and that all the birds on the north side of the Central Range are *D. m. chrysopterus*, while those from the flat country and foothills on the south side of the Central Range alone are *D. m. intermedius*. The young ♂ is very interesting, as the wing is longer than any of the fully adult ♂♂ and the whole back and wings have a strong golden gloss.

5 ♂♂ ad., 1 ♂ juv., 2 ♀♀ Mt. Derimapa, Weyland Range, 4,000–5,000 ft., 28, 29 June, 4, 5, 9 July. Contents of stomach large fruits.

15. Paradisaea minor minor Shaw.

Paradisea minor Shaw, *Gen. Zool.* vii, pt. 2, p. 486 (1809) (Arfak ; type locality designated by Ernst Hartert).

There are apparently in the adult males birds with deep golden orange ornamental plumes, while others have these plumes yellow. It was formerly thought these yellow plumes were due to fading ; but in the light of our fresh material I believe it is due to individual variation.

1 ♂ ad. (orange plumes) Siriwo district, 40 miles inland, south of Geelvink Bay, 500 ft., 19 June 1930 ; 1 ♂ juv. Gebroeders, 4,000 ft., 26 June 1930 ; ♀ ad. Mt. Derimapa, 3,000 ft., 28 June 1930. Contents of stomach berries. In ♂ ad. iris yellow, bill and feet grey ; in ♂ juv. and ♀ ad. iris greenish yellow, bill grey, feet brownish and purplish grey. The ♀ shows no signs of the brownish red colour below the brown throat or on the flanks, so Hartert's conclusion that this is a sign of youth is corroborated.

16. Phonygammus keraudrenii keraudrenii (Less. & Garn.).

Barita keraudrenii Lesson & Garnier, in Férussac's *Bull. Sc. Nat. et de Géologie*, viii, p. 110 (1826) (Dorey, Arfak, Lesson coll.).

This is an entirely new locality, i.e. northern slopes of the Central Range ; the Tring Museum has it from the south slopes of the Snow Mts.

1 ♂ ad. Gebroeders, 3,000 ft., 2 August 1930. Iris orange red, bill and feet black. Contents of stomach berries.

17. **Manucodia chalybata chalybata** (Penn.).

Paradisea chaly'ata Pennant, in Forster's *Zool. Ind. Faunula Indica*, p. 40 (1781) (ex Daubenton, pl. 634, New Guinea).

1 ♂ Mt. Derimapa, about 4,000 ft., 24 July 1930. Iris reddish, bill and feet black. Contents of stomach fruits.

18. **Manucodia jobiensis** Salvad.

Manucodia jobiensis Salvadori, *Ornith. Pap.* ii, p. 502 (Jobi Island).

1 ♂ ad. Siriwo River, 30 miles above mouth, south of Geelvink Bay, 10 June 1930. Iris orange red, bill and feet black.

1 ♂ juv. Lagare River, 16 miles above mouth, south of Geelvink Bay, 7 June 1930.

1 ♂ juv. Gebroeders, 4,000 ft., 26 June 1930.

[Dr. Hartert, in his account of Dr. Ernst Mayr's collections, enumerates 2 ♂♂, 1 ♀ from Hollandia ! and Ifaar. Of these the American Museum has 1 ♂, 1 ♀ from Ifaar, and the Tring Museum has the second ♂, which came from **Hol, not** Hollandia. This specimen, Mayr Coll. no. 1781, is not as Dr. Hartert has said *M. chalybatus orientalis*, but is **M. jobiensis.** As this bird differs slightly from our other *jobiensis*, all except one from the mainland, it is quite possible, if a series came to hand, that after all *M. rubiensis* A. B. Meyer would prove a distinct race.]

19. **Oriolus szalayi** (Mad.).

Oriolus szalayi Madarasz, *Termesz. Füsetek*, xxiv, p. 80 (1901) (Madang, Finschhafen).

When I first compared these 2 skins they appeared much purer grey than those in the Tring Museum, but Dr. Ernst Mayr's examples prove that the brown tinge in the older skins is due to fading.

1 ♂, 1 ♀ Mt. Derimapa, Weyland Range, 28 June, 24 July 1930. Iris red in ♂, brick red in ♀, bill light brown in ♂, olive brown in ♀, feet dark grey. Contents of stomach berries.

20. **Mino dumontii dumontii** Lesson.

Mino dumontii Lesson (1826) (Dorey = Manokwari).

1 ♀ Siriwo River, 35 miles from mouth, south of Geelvink Bay, 11 June 1930. Iris brown flecked with black, naked skin round eye bright orange, bill orange, feet yellow.

21. **Paramythia montium olivaceum** Van Oort.

Paramythia montium olivaceum Van Oort, *Notes Leyden Museum*, xxxii, p. 213 (1910) (Orange and Hellwig Mts.).

This very distinct race differs from *P. m. montium* in the greenish olive, **not** green, back and rump and in the blue, **not** yellow, flanks.

1 ♂, 1 ♀ Mt. Derimapa, 5,000 ft., 26 June 1930 ; 1 ♂ Gebroeders, 6,000 ft., 22 July 1930. Iris brownish black, bill and feet black. Contents of stomach berries (no insects).

The bird from Mt. Derimapa I quote as ♀ was marked as " sex ? ", but the one centimetre shorter wing proves it to be a ♀.

22. **Dicrurus bracteatus carbonarius** Bp.

Dicrourus carbonarius Bonaparte, *Consp. Gen. Av.* p. 352 (1850) (New Guinea).

3 ♂♂, 1 ♀ Siriwo River (1 ♂ 30 miles, 1 ♂ 35 miles, ♂♀ 50 miles above mouth), south of Geelvink Bay, 10, 12, 17 June 1930. Iris ♂ orange, ♀ orange red, bill and feet black. Contents of stomach grubs and large insects.

23. **Artamus maximus** A. B. Meyer.

Artamus maximus A. B. Meyer, *Sitzungsb. Akad. Wissensch. Wien*, lxix, p. 203 (1874) (Arfak Pen., Hattam).

1 ♀ Mt. Derimapa, 5,000 ft., 25 July 1930. Iris brownish black, bill blue grey, tip black, feet black. Contents of stomach insects. Fairly common, sweet song.

24. **Munia tristissima** Wall.

Munia tristissima Wallace, *P.Z.S.* 1865, p. 479 (New Guinea, N.W. extremity = Arfak Pen.).

The single ♂ sent by Shaw Mayer is very much darker than any of the 30 specimens in the Tring Museum collection and 2 also at Tring from Siwi collected by Dr. Ernst Mayr. The upper surface of Shaw Mayer's example is deep chocolate brown with the exception of the straw-coloured rump, and the entire under surface deep black. When we get a series, this will probably prove to be a new subspecies, but it may only be a melanistic aberration, being a single specimen.

1 ♂ Mt. Derimapa, 5,000 ft., 21 August 1930. Iris black, bill and feet steel blue. Contents of stomach small seeds.

Seen in small flocks in the native gardens feeding on grass seeds.

25. **Myzomela cruentata cruentata** A. B. Meyer.

Myzomela cruentata A. B. Meyer, *Sitzungsb. Ak. Wissensh. Wien*, lxx, p. 202 (1874) (Arfak Mts.).

The single ♂ sent by Shaw Mayer is identical with specimens from various other localities in New Guinea.

1 ♂ Mt. Derimapa, 5,000 ft., 12 August 1930. Iris blackish brown, bill black, feet grey black. Contents of stomach small insects.

26. **Melilestes megarhynchus megarhynchus** (Gray).

Melilestes megarhynchus megarhynchus Gray, *P.Z.S. Lond.*, p. 174 (1858) (Aru).

1 ♂ Mt. Derimapa, 5,000 ft., 24 June 1930. Iris orange, bill black, feet grey. Stomach contents insects.

27. **Melipotes fumigatus goliathi** Rothsch. & Hart.

Melipotes fumigatus goliathi Rothschild & Hartert, *Nov. Zool.* xx, p. 515 (1913) (Mt. Goliath).

These examples are even darker than the 3 sent by the Pratts from Mt. Kumpi, but I do not venture to separate them from *M. f. goliathi* until I have seen examples from the big Mt. Weyland itself (the highest of the Weyland Range is 1,000 metres higher than the Gebroeders, = 3,250 ft. higher).

1 ♂ Mt. Derimapa, 24 June 1930; 3 ♂♂ Gebroeders, 5,000 and 6,000 ft., 27 June, 3 July 1930. Iris brown, naked skin round eye in ♂ bright orange, in ♀ bright yellow, feet leaden grey.

28. **Melirrhophetes belfordi joiceyi** Rothsch.

Melirrhophetes belfordi joiceyi Rothschild, *Nov. Zool.* xvxiii, p. 283, no. 21 (1921) (Mt. Kunupi, Weyland Range).

These birds agree perfectly with the 7 specimens obtained by the Pratts on Mt. Kunupi and confirm the pronounced colour difference from *M. b. belfordi*.

2 ♂♂, 2 ♀♀, 1 ♀ juv. Mt. Derimapa, 5,000 ft., 24 and 26 June and 1 August 1930. Iris in ♂ dark brown, in ♀ brown, naked skin behind eye pale blue to blue, bill black, feet dark grey to blackish, underside of toes yellow. Contents of stomach insects !

29. **Meliphaga analoga analoga** (Reichenb.).

Ptilotis analoga Reichenbach, *Icon. Synop. Av.* contin. No. ix, p. 103, pl. ccccl vxii, fig. 3332 (1852 (Oceania).

The single skin sent by Shaw Mayer is the first up to now where the sexing gives rise to doubt ; it is sexed " ♂ oo " and it agrees in all other particulars with our large series of *M. a. analoga*, but in size of **bill and wing** it matches only ♀♀, **our** ♂♂ having larger bills and longer wings. If it is correctly sexed, then it will certainly prove, when a series from the Weyland Mts. comes to hand, to be a new, smaller, subspecies, but as it is so absolutely similar both in size and other respects to ♀♀ of *analoga* from other localities, I cannot help thinking that some error in sexing may have occurred.

1 ♂ ?? Siriwo River, 45 miles above mouth, south of Geelvink Bay, 15 June 1930. Bill dark horn, feet grey.

30. **Xanthotis frenata olivascentior** subsp. nov.

When I listed the collections obtained by the brothers Pratt on Mt. Kunupi I recorded the single skin as *X. fr. salvadorii* ; but on comparing that bird again together with the ♀ sent by Shaw Mayer, with typical *salvadorii* from S.E. New Guinea, I find that they are more strongly washed with olive than in that race. I therefore now give them the subspecific name of *olivascentior*.

♀ similar to *X. fr. salvadorii* Hart., but much more washed with olive ; the rufous cinnamon of the bend of the wing more extended ; underwing coverts and axillaries rufous cinnamon, **not** olive brown ; malar yellow tufts larger and more extended.

1 ♀, type, Mt. Derimapa, 5,000 ft., 29 June 1930. Iris ashy grey, bill black, gape and mouth white, feet bluish grey. Contents of stomach berries ! (Paratype adult Mt. Kunupi, 6,000 ft., Nov.–Dec. 1920 Pratt bros.)

31. **Xanthotis chrysotis mayeri** subsp. nov.

♂. In type the whole upperside much darker brown and the small grey speckles on hindneck much more obsolete than in *X. chrysotis saturatior* ; spots and edges to upper wing coverts and quills wider and much deeper rufous ; underside of tail and undertail coverts much darker ; the ♂ from Mt. Derimapa has the underside less rufescent, more greyish, and the rufous on quills and upper wing coverts more brownish.

1 ♂, Type, Gebroeders, 5,000 ft., 8 August 1930. Iris brown, bill black, feet blue grey. Contents of stomach berries !

1 ♂ Mt. Derimapa, 5,000 ft., 29 June 1930. Iris dark brown, naked skin behind eye dull greenish grey, feet bluish grey. Contents of stomach berries.

32. **Xanthotis polygramma poikilosternos** A. B. Meyer.

Xanthotis poikilosternos A. B. Meyer, *Sitzungsb. Akad. Wiss. Wien*, lxx, p. 112 (1874) (Andai).

The single ♂ has the feathers of the breast more washed with dirty buff than in our examples.

1 ♂ Mt. Derimapa, 5,000 ft., 24 June 1930. Naked skin round eye greenish yellow, bill black, feet grey.

33. **Pristorhamphus versteri meeki** Rothsch. & Hart.

Pristorhamphus versteri meeki Rothschild & Hartert, *Bull. B.O.C.* xxix, p. 36 (1911) (Mt. Goliath).

The two ♂♂ sent agree with our series of *P. v. meeki*.

1 ♂ Mt. Derimapa, 5,000 ft., 15 August 1930.

1 ♂ Gebroeders, 5,000 ft., 21 August 1930. Iris black brown, bill and feet black. Contents of stomach berries.

34. **Zosterops minor** subsp. ?

Shaw Mayer sent a single ♀ *Zosterops* which differs from Jobi examples of *Z. minor minor* in having black brown lores and brownish olive cheeks ; also the head and upperside is much less golden, more grass green. As, however, there are so many *Zosterops* known, I do not venture to describe a new subspecies from a single ♀.

1 ♀ Mt. Derimapa, 5,000 ft., 29 June 1930. Iris red brown, bill black, feet blue grey. Contents of stomach berries.

35. **Pachycare flavogrisea flavogrisea** (A. B. Meyer).

Pachycephala flavogrisea A. B. Meyer, *Sitzungsb. Akad. Wiss. Wien*, lxix, p. 495 (1874) (Arfak).

The single ♀ sent agrees well with Siwi ♀♀ collected by Dr. Ernst Mayr.

1 ♀ Gebroeders, 6,000 ft., 7 July 1930. Iris reddish brown, bill black, feet horn colour.

Shot on nest containing one egg. Shaw Mayer sent some eggs, including this, but although his birds and mammals are marvellously well labelled his eggs have no indications whatever and are useless.

36. **Pachycephala schlegeli schlegeli** Schleg.

(Name ex Rosenberg manuscript) *Nederl. Tijdschr. Dierk.* iv, p. 43 (1873) (Interior Arfak Pen.).

The adult ♂ is somewhat intermediate between *s. schlegeli* and *s. obscurior*, but, as we have in addition only the Pratts' ♂ with a defective breast and a young bird apparently wrongly sexed, I do not venture to separate the Weyland birds.

1 ♂ ad., 1 juv. (in mixed plumage but whole underside very deep yellow) sexed ♀ ?? Mt. Derimapa, 26 June 1930. Bill black, feet olive. Contents of stomach grubs and small insects.

37. Pachycephala griseiceps subflavidior Hart.

Pachycephala griseiceps subflavidior Hartert, *Nov. Zool.* xxxvi, p. 56 (1930) (Cyclops Mts.).

Apparently *g. jobiensis* does not reach inland, while the present form occurs on all the northern slopes.

1 ♀ Mt. Derimapa, 5,000 ft., 29 June 1930. Iris reddish brown, bill black, feet bluish grey. Has lower abdomen very brilliant yellow.

38. Pachycephala hyperethra hyperethra Salvad.

Pachycephala hyperethra Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 932 (1875) (Arfak Mts. and Kapaur).

Shaw Mayer sent an adult ♀ labelled thus: "(♂?)"; it has much more brilliant chestnut edges and outer vanes than any others I have seen, and when we have a series no doubt will prove distinct; but I do not venture to separate it on a single ♀.

1 ♀ ad. Mt. Derimapa, 5,000 ft., 13 August 1930. Iris brown, bill dark horn colour, feet greyish flesh colour.

39. Pachycephala rufinucha niveifrons Hart.

Pachycephala rufinucha niveifrons Hartert, *Nov. Zool.* xxxvi, p. 57, no. 94 (1930) (Wondiwoi Mts., Wandammen).

1 ♂, 1 ♀ ad. Gebroeders, 6,000 ft., 1, 13 August 1930. Iris brownish grey with yellow ring, bill black, feet brownish grey. Contents of stomach small insects. In the ♀ the chestnut nuchal patch is paler and brighter in colour.

40. Pachycephala pectoralis klossi O. Grant.

Pachycephala klossi Ogilvie Grant, *Jub. Suppl. Ibis*, pt. ii, p. 88, 1915 (Utakwa Valley).

1 ♂ ad. Gebroeders, 6,000 ft., 31 July 1930. Iris reddish brown, bill black, feet blackish grey. Contents of stomach insects.

41. Pachycephala poliosoma albigularis subsp. nov.

♂♀ adult differ from *P. p. approximans* O. Grant in the white of the throat being purer, less yellowish, and more extended, and the blue of the underside deeper, less greyish. Type ♂.

1 ♂, 2 ♀♀ Gebroeders, 6,000 ft., 9 August 1930.

42. Pachycephala tenebrosa atra subsp. nov.

Shaw Mayer has sent a fine old ♂, and so we now see that the Pratts' tailless ♂ is a younger bird.

♂ adult differs from *P. t. tenebrosa* in having the upperside and the top of head black, not black brown.

1 ♂ ad., type, Gebroeders, 6,000 ft., 16 August 1930. Iris reddish brown, bill black, feet blackish grey. Though it is a single example I venture to describe it, as all Meek's 9 skins of *P. t. tenebrosa* are identical and dark brown above.

43. Pinarolestes megarhynchus megarhynchus (Quoy & Gaim.).

Muscicapa megarhyncha Quoy & Gaimard, *Voy. Astrolabe, Zool.* i, p. 172, pl. iii, f. 1 (1830) (Dorey).

The *megarhynchus* group of *Pinarolestes* is most puzzling. Hartert & Meise unite the black-billed *melanorhynchus* forms with the typical *megarhynchus*

forms with pale bills, whereas Mathews separates them into two species, *megarhynchus* and *melanorhynchus*, and places these in the genus *Caleya* Mathews, while he restricts *Pinarolestes* Sharpe to the Oceanic forms and makes a new genus *Bowyeria* Mathews for the Australian species *boweri*. I cannot see any necessity for this "genus-splitting" and shall continue to treat all these smaller wood shrikes as *Pinarolestes*. However, the question of the species and subspecies is far from being so easy to settle. Fortunately the question of the specific status of the *melanorhynchus* forms does not arise at the moment, for Shaw Mayer's single ♂ belongs to the pale-billed section. It agrees perfectly with our series from the Snow Mts. and also with Dr. Ernst Mayr's specimens from Siwi and Manokwari.

1 ♂ Gebroeders, 5,000 ft., 2 August 1930. Iris brown, bill horn coloured, feet dark grey. Contents of stomach grasshoppers and other insects.

44. **Pitohui nigrescens bürgersi** Stresem.

Pitohui nigrescens bürgersi Stresemann, *Journ. Ornith.* 70, p. 406 (1922) (Schraderberg).

The forms of *nigrescens* apparently differ from each other much more sharply in the ♀♀ than in the ♂♂, in fact *nigr. meeki* from Mt. Goliath was described from a single ♀. In my paper on the birds obtained by the Pratt brothers on Mt. Kumupi I listed their 2 ♀♀ as *P. n. meeki*, but Dr. Hartert already remarks, in his account of Dr. Ernst Mayr's birds, Nov. Zool. xxxvi. p. 59 (1930), that these two ♀♀ are less bright than the type of *P. n. meeki*. Shaw Meyer has sent a very fine adult ♂ which settles the facts as regards *meeki* being different from the Weyland Mts. birds; but whether ♂♂ from the Kai peninsula will prove different again remains for the future when such come to hand. Anyhow, this ♂ from the Weyland Range is absolutely unicolorous and of the most intense black, whereas the ♂♂ of *meeki* from the Snow Mts. are paler below and generally slate black, not intense black. The two ♀♀ from Mt. Kumupi, as Dr. Hartert has remarked, are less bright than, and not so deep in colour as, *meeki* and agree best with the description of the ♀ of *P. n. bürgersi* Stresem. As the latter only had before him a younger ♂ in moult, it would not be wise to separate the Weyland birds, especially as Stresemann says his ♂ points to the adult ♂ being darker than the typical form. I therefore list the Weyland birds under this form, although the distribution is very strange.

1 ♂ Gebroeders, 5,000 ft., 1 August 1930. Iris brownish black, bill and feet black. Contents of stomach large insects.

45. **Pitohui ferrugineus ferrugineus** (Bp.).

Rhectes ferrugineus Bonaparte, *Compt. Rend. Acad. Paris*, xxxviii, p. 536 (1850) (Lobo, ex Müller in Mus. Lugd.).

Mathews enumerates 5 subspecies of *ferrugineus*, including the nominotypical form, and Stresemann also acknowledges these 5 races; but unless the form inhabiting Mysol cannot be separated from *f. clarus* from New Guinea east of the Fly River, I think it will eventually have to be separated as a sixth form.

1 ♂ Siriwo River, 45 miles above mouth, south of Geelvink Bay, 15 June 1930. Iris pale yellow, bill black, feet grey. Contents of stomach beetles and berries.

46. **Pitohui jobiensis brunneivertex** subsp. nov.

The discovery of *P. jobiensis* on the Weyland Mts. is most remarkable, and the well-marked separation of the more olive grey-brown head from the back goes to prove that *jobiensis* and *meyeri* are two races of one species. There will thus be 4 subspecies of *Pitohui jobiensis*, viz. *P. job. jobiensis* from Jobi Island, *P. job. meyeri* from Takar, *P. job. brunneivertex* from Weyland Mts., and a bird still paler than *meyeri* about to be described by Dr. Hartert from the N.E. coast of New Guinea.

♂ ad. Differs from *job. jobiensis* above by the head being olive rufous brown, NOT fiery rufous chestnut like the rest of the under surface; below the throat and chin an olive shade, and the rest of the under surface is dark orange rufous, **not** fiery rufous chestnut as in *job. jobiensis*.

2 ♂♂ Mt. Derimapa, 5,000 ft., 24 and 28 June 1930. Iris dark brown, bill and feet horn colour. ♂ no. 42 type. Contents of stomach berries and insects.

1 ♀ Siriwo River, 30 miles above mouth, south of Geelvink Bay, 9 June 1930. This ♀ has the top of the head more rufous, less olive than in the 2 Derimapa ♂♂, but less rufous than in Jobi Island birds.

47. **Pitohui dichrous dichrous** (Bp.).

Rhectes dichrous Bonaparte, *Compt. Rend. Akad. Paris*, xxxi, p. 563 (1850) (Lobo, ex Salomon Müller).

1 ♀ Gebroeders, 4,000 ft., 10 August 1930; 1 ♀ Mt. Derimapa, 5,000 ft., 16 August 1930. Iris reddish brown, bill and feet black. The Gebroeders ♀ no. 296 is sexed "(♂ ?)," but its wing measures 94 mm., while the Derimapa ♀ no. 322 measures 103 mm.; so if the latter is right, as I think it is, both are ♀♀, as a ♂ would have longer wings.

48. **Gerygone palpebrosa wahnesi** (A. B. Meyer).

Pseudogerygone wahnesi A. B. Meyer, *Ornith. Monatsb.* 1899, p. 144 (Bongu, N.E. New Guinea).

It is a great extension to its range finding *G. p. wahnesi* on the Weyland Mts.

1 ♂ Mt. Derimapa, 5,000 ft., 15 August 1930. Iris red, bill black, feet blackish. Contents of stomach small worms (tree) (? = larvae).

49. **Phylloscopus trivirgatus albigula** subsp. nov.

This new race is nearest to *t. mathiae* from St. Mathias Island and *t. ceramensis* from Seran in having a whiter throat and chin, but it differs from both in having a median band on the crown and a pure white, **not** white and yellow, throat and chin and band behind the eye.

1 ♂, Type, Mt. Derimapa, 5,000 ft., 23 June 1930. Iris dark brown, bill dark horn colour, feet grey.

50. **Microeca griseiceps occidentalis** Rothsch. & Hart.

Microeca griseiceps occidentalis Rothschild & Hartert, *Nov. Zool.* x, p. 471 (1903) (Warmendi, Arfak).

1 ♂ Mt. Derimapa, 5,000 ft., 15 August 1930. Iris blackish, bill, upper mandible black, under mandible horn yellow, feet yellowish. Contents of stomach insects.

51. Microeca flavovirescens Gray.

Microeca flavovirescens Gray, *P.Z.S. London*, 1858, p. 178 (Aru Islands).

1 ♂ Gebroeders, 5,000 ft., 26 July 1930. Iris brown, bill, upper mandible black, under mandible horn yellow, feet blackish yellow. Contents of stomach insects.

52. Paecilodryas cyanus cyanus (Salvad.).

Myiolestes ? cyanus Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 394 (1875) (Hatam).

These birds are slightly darker than Arfak *P. c. cyanus*, but not so dark as *P. c. subcyanus*.

2 ♀♀ Gebroeders, 6,000 ft., 1 and 18 August 1930. Iris brown, bill and feet black. Contents of stomach large insects.

(Dr. Hartert has recorded the Wandammen and Cyclops birds as *subcyanus* ; the head, however, is decidedly blacker than in birds from east of the Fly River, but Snow Mts. birds are mixed.)

53. Poecilodryas cryptoleucus albidior subsp. nov.

♀ ad. differs from *P. c. cryptoleucus* in being larger (wing 85 mm. as opposed to 78·5 mm.) and having the centre of the abdomen almost pure white and the rest of underside much mixed with white.

♀ ad., Type, Gebroeders, 6,000 ft., 26 July 1930. Iris blackish brown, bill black, feet blackish. Contents of stomach insects.

54. Poecilodryas leucops leucops (Salvad.).

Leucophantes leucops Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 921 (1875) (Arfak Mts.).

1 ♀ Gebroeders, 6,000 ft., 15 August 1930. Iris blackish brown, bill black, feet lemon yellow. Contents of stomach insects.

55. Poecilodryas bimaculatus bimaculatus (Salvad.).

Myiolestes ? bimaculatus Salvadori, *Ann. Mus. Civ. Gen.* vi, p. 84 (1874) (Putat, Arfak Pen.).

This ♂ and ♀ have quite as much white as the whitest of Arfak birds, on the abdomen ; but at any rate one of our *P. b. vicaria* from Mt. Cameron shows as much.

1 ♂, 1 ♀ Gebroeders, 6,000 ft., 14 August 1930. Iris brownish black, bill and feet black. Contents of stomach insects and larvae.

56. Monachella mülleriana (Schleg.).

Muscicapa mülleriana Schlegel *Ned. Tijdschr. Dierk.* iv, p. 43 (1871) (Arfak Mts.).

1 ♀ Gebroeders, 6,000 ft., 8 August 1930. Iris brown, bill black, feet blackish. Contents of stomach insects.

57. Peltops blainvillii blainvillii (Less. & Garn.).

Eurylamus blainvillii Lesson & Garnier in Férussac's *Bull. Sc. Nat. et Géol.* xi, p. 302 (1827) (Dorey).

1 ♂ Siriwo River, 30 miles above mouth, south of Geelvink Bay, 9 June 1930. Irish orange red, bill and feet black.

58. **Peltops blainvillii montanus** Stresem.

Peltops blainvillii montanus Stresemann, *Anz. Orn. Ges. Bayern*, No. 5, p. 35 (1921) (Hunsteinspitze).

♂♀ Mt. Derimapa, 5,000 ft., 28 June 1930. Irish reddish brown, feet and bill black. (Pair shot at nest feeding one young one.) Contents of stomach insects

59. **Todopsis cyanocephalus bonapartii** Gray.

Todopsis bonapartii Gray, *P.Z.S. London*, 1859, p. 156 (Aru Islands).

The single ♂ sent agrees best with one of our Snow Mts. birds: so I have listed it under *c. bonapartii*, but without ♀♀ it is impossible to be quite certain. It has white edges to the tail feathers.

1 ♂ Makimi, south of Geelvink Bay, 5 September 1930. Iris brownish black, bill black, feet olive. Contents of stomach insects and a spider.

60. **Monarcha frater frater** Scl.

Monarcha frater Sclater, *P.Z.S. London*, 1873, p. 691 (Hatam).

The single ♂ is nearest to *M. f. frater*, but the grey of the upper surface and of the breast is still paler, more whitish; but until we get a series I dare not separate it.

1 ♂ Gebroeders, 5,000 ft., 26 July 1930. Iris brownish black, bill and feet blue grey. Contents of stomach insects.

61. **Monarcha manadensis** (Quoy & Gaim.).

Muscicapa manadensis Quoy & Gaimard, *Voy. Astrol., Zool.* i, p. 174, pl. iii, f. 3 (1830) (New Guinea).

1 ♂, 1 ♀ Gebroeders, 5,000 ft., 1 and 9 August 1930. Iris brownish black, bill blue grey, tip black, feet blue grey.

62. **Monarcha axillaris ernesti** subsp. nov.

Dr. Hartert, when listing the collections of Dr. Ernst Mayr, already pointed out (Nov. Zool. xxxvi, p. 1930, under no. 151) that probably the Wondivoi birds constituted a new race. The bird sent from the Weyland Mts. confirms this suspicion, as it has quite as much white on the underside as the ♂ from Wondivoi; I therefore name it in honour of Dr. Hartert.

♂ ad. similar to *M. ax. axillaris*, but with very much more white on the sides of the breast and abdomen.

1 ♂ ad. type, Gebroeders, 5,000 ft., 9 August 1930. Iris blackish brown, bill bluish grey, tip black, feet blackish. Contents of stomach small insects.

63. **Monarcha chrysomela aurantiacus** A. B. Meyer.

Monarcha chrysomela aurantiacus A. B. Meyer, *Abh. Ber. Mus. Dresd.* 1890–1891, No. 4, p. 9 (1892) (Kafy and Stephansort).

It is strange that at this new locality, so far west and inland from both the Cyclops Mts. and Stephansort, the example of this species should be indistinguishable from *M. ch. aurantiacus*, though the 2 ♂♂ are very rich in colour.

2 ♂♂ Mt. Derimapa, 5,000 ft., 24 and 28 June 1930; 1 ♀ (or ♂ juv.?) Gebroeders, 5,000 ft., 8 August 1930. Iris blackish brown, bill blue grey, tip black, feet blue grey. Contents of stomach insects (grasshoppers). The black forehead in this supposed ♀ makes me doubt the sexing.

64. **Rhipidura rufiventris gularis** Müll.

Rhipidura gularis S. Müller, *Verh. Land- en Volkenk.* p. 185 (1844) (Lobo = Triton Bay).

1 ♀ Gebroeders, 5,000 ft., 7 August 1930. Iris brownish black, bill black, feet blackish.

65. **Rhipidura rufidorsa rufidorsa** A. B. Meyer.

Rhipidura rufidorsa A. B. Meyer, *Sitzungsb. Akad. Wiss. Wien*, lxx, p. 200 (1874) (Rubi, passim, Jobi).

1 ♀ Mt. Derimapa, 5,000 ft. Iris blackish brown, bill horn colour, feet grey.

66. **Rhipidura albolimbata albolimbata** Salvad.

Rhipidura albolimbata Salvadori, *Ann. Mus. Civ. Gen.* vi, p. 312 (1874) (Hatam).

1 ♂ Gebroeders, 5,000 ft., 9 August 1930. Iris blackish brown, bill, upper mandible black, lower horn colour, feet blackish. Contents of stomach small insects.

67. **Malurus alboscapulatus aida** Hart.

Malurus alboscapulatus aida Hartert, *Nov. Zool.* xxxvi, p. 78, no. 167 (1930) (Haar, Hollandia).

It is strange that on the northern slopes of the Central Range *M. a. aida* should occur, while on the southern slops *a. lorentzi* is found.

1 ♀ Mt. Derimapa, 5,000 ft., 20 August 1930. Iris brownish black, bill black, feet greyish.

68. **Crateroscelis murinus** (Scl.).

Brachypteryx murina Sclater, *Journ. Linn. Soc. London*, ii, p. 158 (1858) (Lobo).

Dr. Hartert and Mr. Mathews make no subspecies of *murina*, but all our S.E. New Guinea examples and those from Waigiou and Mysol have the upper surface grey brown or deep umber brown, whereas Siwi and Cyclops Mts. birds have the head deep black brown and the back dark brown, and the single ♀ ad. sent by Shaw Mayer has the head deep black and the back brown black. I will, however, await further material before separating any of these.

1 ♀ Mt. Derimapa, 5,000 ft., 16 August 1930. Iris brown, bill dark horn colour, feet light horn colour.

69. **Eupetes leucostictus mayri** Hart.

Eupetes leucostictus mayri Hartert, *Nov. Zool.* xxxvi, p. 87, no. 186 (1930) (Wondiwoi).

This example marked by the collector ♀ juv. is quite typical of the subspecies.

1 ♀ (juv. ?) Gebroeders, 5,000 ft., 31 July 1930. Bill black, feet blackish.

70. **Eupetes caerulescens caerulescens** Temm.

Eupetes caerulescens Temminck, Pl. Col. ii, pl. 274 (1835) (New Guinea).

The blue of the underside is brighter than in Doherty's Takar ♀ and Ernst Mayr's Cyclops Mts. example; but though all 3 ♀♀ show a black throat line much reduced in width, in the present example the ring is uniform and entire, whereas in the Takar and Cyclops specimens it is broken and almost absent in front.

1 ♀ Siriwo district, 500 ft., 40 miles inland, south of Geelvink Bay, 19 June 1930. Iris brownish black, bill black, feet dark horn colour.

71. **Pomareopsis bruijnii** (Salvad.).

Grallina bruijnii Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 929 (1875) (Arfak Mts.).

In all 3 examples the bills are rather long.

1 ♂, 2 ♀♀ Nadimo River, 3,000–4,000 ft., 31 July and 2 August 1930. Iris blackish brown, bill and feet lavender. Stomach contained insects.

72. **Pomatorhinus isidori calidus** subsp. nov.

P. isidori isidori is so widely spread all over New Guinea and varies so little that it appears very risky indeed to break it up into 2 subspecies on the evidence of one example only; but the difference is so striking and the colour so many degrees richer on underside and deeper above than any of the 31 specimens of *isidori isidori* in the Tring Museum, that I venture all the same to separate the bird from the Siriwo River. Probably also when we get this species from Wandammen we shall find it to be *isidori calidus*. I have compared this bird with 3 ♂, 3 ♀♀ from Andai, 1 ? Momi (in the Arfak Peninsula), 2 ♂, 1 ? from Dorey (Arfak typical locality), 5 ♂♂, 3 ♀♀ from Takar, 1 ♂ from Sorong, 2 ♂♂, 1 ♀ from Misol, 1 ♂, 5 ♀♀ from Snow Mts. (Setekwa River), 1 ? Brown River, 2 ♂♂ Mt. Cameron (both S.E. New Guinea), and I find it strikingly different.

♂ adult differs from *P. is. isidori* on the upperside: the top of the head and back deep brownish chocolate rufous, **not** cinnamon rufous; primaries and tail deep chestnut rufous, **not** bright ferruginous rufous as in *P. i. isidori*; throat and breast deep ferruginous rufous, **not** cinnamon; lower breast, abdomen, and thighs deep rufous chestnut, **not** ferruginous rufous as in *P. i. isidori*; wing 114 mm. as against 104 mm. in *i. isidori*; bill basal half black, apical half orange, **not** basal one-quarter blackish, rest yellow as in *i. isidori*.

1 ♂, Type, Siriwo River, 45 miles above mouth, south of Geelvink Bay, 14 June 1930. Iris dark brown, bill orange on apical half, black on basal half, feet leaden black.

[*Graucalus versus Coracina.*

The name *Graucalus* was proposed for certain members of the family *Campephagidae* by Cuvier in *Règne Animal*, vol. i, in April 1816, whereas Vieillot in his *Analyse* in December 1816 published the name *Coracina* for the same birds. Mathews, in his *Systema Avium Australasiarum* rejected the name *Coracina* because of **Coracinus** Pallas, *Zoographia* 1814, and uses *Graucalus* instead. It has, however, been settled by the Commission that with a few exceptions such as *coerulea* and *caerulea* names already published differing only in termination **a** or **us** or in a single letter are different words and should not therefore be rejected; the Commission, however, strongly urges all workers **not** to create in the future names differing only in one letter or in the termination.]

73. **Coracina papuensis papuensis** Gm.

Corvus papuensis Gmelin, *Syst. Nat.* i, p. 371 (1788) (Nova Guinea, ex Latham & Daubenton).

As birds in the eighteenth century certainly only came from N.W. New Guinea, we cannot go wrong in making the darkest race the typical form.

1 ♀ Siriwo River, 35 miles above mouth, south of Geelvink Bay, 11 June 1930. Iris dark brown, bill and feet black.

[The birds from the Snow Mts. are exactly intermediate between *C. p. papuensis* from N.W. New Guinea and *C. p. meekiana* from S.E. New Guinea; so I propose to call the race found on the south side of the Central Range.

Coracina papuensis **intermedia** subsp. nov.

Type ♂ no. 4406, Upper Setekwa River, 21 July 1910, A. S. Meek coll.]

74. **Coracina coeruleogrisea strenua** (Schleg.).

Campephaga strenua Schlegel, *Ned. Tijdschr. Dierk.* iv, p. 44 (1871) (Jobi and Arfak Pen.).

The young bird differs from the adult in having the inner webs of the secondaries with the basal half almost white and the outer half more or less bordered with white; also the rectrices are pointed, not round and edged with white, the outer 2 pairs having broad white ends.

1 ♂, 2 ♀♀ Mt. Derimapa, 5,000 ft., 26 June and 9 and 17 July 1930; 1 ♂ ad., 1 ♀ juv. Gebroeders, 4,000 and 5,000 ft., 28 July and 11 Aug. 1930. Iris brownish black, feet and bill black. Contents of stomach large insects (beetles and cockroaches).

75. **Edoliosoma montanum montanum** (A. B. Meyer).

Campephaga montana A. B. Meyer, *Sitzungsb. Akad. Wiss. Wien*, lxix, p. 386 (1874) (Arfak)

1 ♂ (a few grey feathers still on breast) Gebroeders 5,000 ft., 12 August 1930. Iris blackish, bill and feet black. Contents of stomach berries and caterpillars.

76. **Edoliosoma melan melan** (Less.).

Lanius melas Lesson, *Man. Ornith.* i, p. 128 (1828) (Dorey).

1 ♂ Mt. Derimapa, 5,000 ft., 8 July 1930. Iris, bill and feet black.

77. **Melampitta lugubris** Schleg.

Melampitta lugubris Schlegel, *Ned. Tijdschr. Dierk.* iv, p. 47 (1871) (Arfak Pen.).

1 ♂ Gebroeders, 6,000 ft., 11 August 1930. Iris red, bill and feet black. Stomach contained insects. (Collector's note "rare (diffieult to obtain)".)

78. **Collocalia esculenta esculenta** (Linn.).

Hirundo esculenta Linnaeus, *Syst. Nat.* ed. x, i, p. 191 (1758) (China err., vere Amboyna ex Rumphius).

2 ? collector's sexing "? juv." Mt. Derimapa, 5,000 ft., 20 August 1930. Iris blackish, bill black, feet flesh colour, claws black.

79. **Hemiprogne mystacea mystacea** (Less.).

Cypselus mystaceus Lesson, *Voy. Coquille, Zool.* p. 647, p. 22 (1827) (1830) (New Guinea).

1 ♂ Gebroeders, 5,000 ft., 28 July 1930. Iris dark brown, bill black, feet blackish. Stomach contained insects.

80. **Aegotheles insignis insignis** Salvad.

Aegotheles insignis Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 916 (1875) (Hatam).

The two ♂♂ sent by Shaw Mayer are most welcome; they confirm Dr. Hartert's opinion that the bird sent by the Pratt brothers from Mt. Kumupi and identified by myself as *A. insignis pulcher* Hartert is really *insignis insignis*.

These two show a wing measurement of 158 and 161 mm.

2 ♂♂ Gebroeders, 5,000–6,000 ft., 19 July and 18 August 1930. Iris light brown, bill horn colour, feet pale flesh colour. Stomach contained large insects (beetles) (stomach (i.e. crop?) very large for size of bird).

81. **Aegotheles wallacei gigas** subsp. nov.

I am inclined to consider this very fine form a distinct species, but all the *Aegotheles* are so variable individually that it is safer to treat it for the present as a very distinct subspecies. ♂ differs in its much browner (rufous) head, less black, more grey back and much larger buffish white patches on the sides of back and tertiaries; below it is strikingly different, all the lower breast and abdomen being buffish white and rufous streaked and spotted with black; lower flanks and under tail coverts streaked and banded dark grey and white. Wing 130 mm. ♀ differs in the central black head-stripe and in the much greater extent of the rufous, white, and black bands all over the under surface. Wing 133, 135, 135, 136, 136, 137 mm.

1 ♂, Type, Mt. Derimapa, 5,000 ft., 17 July 1930; 1 ♂, 5 ♀♀ Gebroeders, 5,000 ft., 24, 26, 29 July, 7, 17 August 1930. Iris brown, bill, upper mandible dark horn, lower mandible light horn colour. Stomach contained insects (chiefly beetles). Type ♂ ad. no. 188 Mt. Derimapa.

Wing of *A. wall. wallacei* 111 and 115 mm. On p. 95, no. 218, Dr. Hartert lists an *Aegotheles* from Wondivoi with a wing 138 mm., but the markings of *albertisi*.

82. **Podargus papuensis papuensis** Quoy & Gaim.

Podargus papuensis Quoy & Gaimard, *Voy. Astrolabe, Zool.* i, p. 207, Atlas, p. 13 (1830) (Dorey).

When first I examined the 6 skins sent by Shaw Mayer, I thought I had a quite new subspecies, because 5 out of the 6 were above of a deep chestnut brown colour with the tertiaries varying from orange buff to ferruginous rufous, but on getting out the series in the Tring Museum from New Guinea, consisting of 38 skins, I found so much variation that colour proved useless to separate them by. Then the series proved that the brown and red examples were ♀♀. I proceeded to look at the Weyland Mts. birds and at once the matter became clear: the 4 brown birds were ♀♀ and the single grey bird was a ♂. I still believe that if we got series of ♀♀ from the various localities we might separate the New Guinea birds into several races, but at present we have too few ♀♀ to do so, and those we have vary so much in one and the same locality that it would be folly to attempt to define subspecies.

1 ♂, 2 ♀♀ Gebroeders, 5,000 ft., 27 and 28 July 1930. Iris red, bill and feet horn colour. Stomach contents large insects (grasshoppers) and gravel.

2 ♀♀ Mt. Derimapa, 5,000 ft., 15 and 22 July 1930.

1 ♀ Mt. Sorong, 5,000 ft. 20, July 1930. Stomach contained remains of a small mammal.

83. **Podargus ocellatus ocellatus** Quoy & Gaim.

Podargus ocellatus Quoy & Gaimard, *Voy. Astrolabe, Zool.* i, p. 208, Atlas, pl. xiv (1830) (Dorey).

The series sent consists of 10 adults and 1 downy chick. Of these 4 ♂♂ and 4 ♀♀ show their usual pale underside and paler back in the ♂♂ and the deep rufous coloration in the ♀♀; 1 ♂ and 1 ♀ have this coloration reversed. 1

have compared these with 40 adult and 4 chicks in the Tring Museum and find they agree perfectly with all the specimens except those from N.E. New Guinea (Kumusi and Mambaré Rivers and Collingwood Bay), which sooner or later must be separated.

4 ♂♂, 4 ♀♀ Gebroeders, 4,000–5,000 ft., 26, 28, 31 July, 3, 10, 16 August 1930. Iris brown, bill brownish horn colour, feet varying from pale flesh colour to light horn colour.

1 ♀ ad., 1 ♂ pull. Mt. Derimapa, 5,000 ft., 7 July and 8 August 1930.

1 ♂ ad. Siriwo River, 35 miles from mouth, south of Geelvink Bay.

Stomachs all contained insects (beetles and grasshoppers).

84. **Ceyx lepidus solitarius** Temm.

Ceyx solitaria Temminck, *Pl. Col.* 595 (1836) (Lobo Bay).

The bird from Siriwo has some pale azure blue streaks on its back.

1 ♀ Siriwo River, 45 miles from mouth, south of Geelvink Bay, 15 June 1930; 1 ♂ Mt. Derimapa, 4,000 ft., 1 August 1930. Iris yellow, bill black, feet orange.

85. **Syma torotoro megarhyncha** Salvad.

Syma megarhyncha Salvadori, *Ann. Mus. Civ. Gen.* xvi, p. 70 (1896) (Owen Stanley Range).

S. megarhyncha and its Northern race *sellamontis* are the high mountain forms of *torotoro* and its various subspecies; they are conspicuous by their much larger size.

1 ♂ and ♀ ad. Mt. Derimapa, 4,000 and 5,000 ft., 14 and 19 July 1930. Iris blackish brown, bill bright yellow, ridge black, feet yellow. Stomach contained insects.

86. **Melidora macrorhina jobiensis** Salvad.

Melidora jobiensis Salvadori, *Orn. Pap. & Moluce.* i, p. 502 (1880) (Jobi Island).

1 ♀ Siriwo River, 45 miles above mouth, south of Geelvink Bay, 14 June 1930. Iris dark brown, bill, upper mandible black, lower mandible horn colour, feet greenish yellow

87. **Sauromarptis gaudichaud** (Quoy & Gaim.).

Dacelo gaudichaud Quoy & Gaim., *Voy. Uranie, Zool.* p. 112, pl. xxv (1825) (New Guinea).

The ♂♂ have the tail blue, the ♀♀ chestnut.

1 ♂, 1 ♀ Siriwo River, 45 miles from mouth, south of Geelvink Bay, 14 and 15 June; 1 ♀ Gebroeders, 4,000 ft., 3 August 1930. Iris brown to brownish black, bill in ♂ greenish grey, ridge black, in ♀ light horn colour, ridge dark horn. Stomach contained large insects (grasshoppers).

88. **Cacomantis castaneiventris arfakianus** Salvad.

Cacomantis arfakianus Salvadori, *Orn. Pap. e Mol., Aggiunte*, i, p. 49 (1889) (Arfak and W. Papuan Islands).

1 ♂, 1 ♀ Mt. Derimapa, 5,000 ft., 19 July 1930. Iris brownish, skin round eye yellow, bill black, feet yellow. Stomach contained insects.

The ♂ has the throat grey, the ♀ almost like the rest of the underparts.

89. **Microdynamis parva** (Salvad.).

Eudynamis parva Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 486 (1875) (Tidore ! probably Arfak).

1 ♂ (apparently not quite adult, as breast shows shadowy cross bars), Gebroeders, 5,000 ft., 20 July 1930. Iris crimson, bill black, feet blackish grey.

90. **Domicella lory rubiensis** (A. B. Meyer).

Lorius erythrothorax rubiensis A. B. Meyer, *Abh. Ber. Mus. Dresd.* No. 3, 1892–1893, p. 10 (1893) (Ruby, south of Geelvink Bay).

These 3 examples are all very small and confirm the difference from *L. l. erythrothorax* from east of the Fly River ; ♂ wing 147 and 151 mm. ; ♀ wing 143 mm.

1 ♂, 1 ♀ Mt. Derimapa, 4,000–5,000 ft., 22 and 26 July 1930 ; 1 ♂ Gebroeders, 27 July 1930. Iris yellow, bill orange, feet black. Stomach contained pollen and small insects.

91. **Oreopsittacus arfaki major** O. Grant.

Oreopsittacus arfaki major Ogilvie Grant, *Bull. B.O.C.* xxxv, p. 11 (1914) (Utakwa River).

The measurements of the wing of these 10 examples vary between 78 and 85 mm., whereas *O. a. arfaki* varies between 68 and 75 mm.

6 ♂♂, 3 ♀♀ adult Gebroeders, 6,000 ft., 28 and 30 June, 1, 2, 14 July, 18 August 1930. Iris brown, bill, upper mandible black, lower horn colour, feet dull grey. In addition to these there is a young bird with the breast patch very slight and a few red feathers in the crown which is sexed ♀. Shaw Mayer has written as follows on the back of the label : " Very carefully sexed this bird on account of red frontal feathers. Ovaries very small, but well formed." Possibly gynandramorph ?

92. **Neopsittacus muschenbroeki muschenbroeki** (Schleg.).

Nanodes muschenbroeki Schlegel, *Ned. Tijdschr. Dierk.* iv, p. 34 (1871) (Arfak Mts. ; Dr. Hartert quotes 1873).

2 ♂♂, 2 ♀♀ Gebroeders, 5,000–6,000 ft., 28 and 30 June, 1 July, 13 August 1930. Iris orange, bill yellow, feet grey. Stomach small hard seeds, crop white berries.

93. **Neopsittacus pullicauda** Hart.

Neopsittacus pullicauda Hartert, *Nov. Zool.* iii, p. 17 (1896) (Owen Stanley Range).

Dr. Hartert lately came to the conclusion that *pullicauda* was the high mountain representative of *muschenbroeki* and sank it to the rank of a subspecies. This is erroneous, as proved by Shaw Mayer procuring both *pullicauda* and *muschenbroeki* at 6,000 ft. on the Gebroeders. For the present I am quoting these under *pullicauda* Hart., but from these 2 and the Mount Goliath example, when compared with 3 or 4 others from S.E. New Guinea, I feel sure when we get larger series the birds from west of the Fly River will prove distinct from those from east of the Fly River and that *alpinus* O. Grant will have to be reinstated.

2 ♂♂ Gebroeders, 6,000 ft., 28 June, 4 July 1930. Iris orange, bill orange yellow, feet dark grey.

94. Glossopsitta goldiei (Sharpe).

Trichoglossus goldiei Bowdler Sharpe, *Journ. Linn. Soc. Zool.* xvi. pp. 318 and 426 (1882) (Astrolabe Mts.).

1 ♀ Gebroeders, 5,000 ft., 30 June 1930. Iris blackish brown, bill black, feet greenish grey.

95. Charmosyna josephinae josephinae (Finsch).

Trichoglossus josephinae Finsch, *Atti Soc. Ital. Sc. Nat.* xv. p. 427, pl. 7 ♀ (1873) (hab. ? subsequently Arfak Mts., A. B. Meyer).

4 ♂♂, 6 ♀♀ Gebroeders, 5,000–6,000 ft., 23 and 26 June, 1, 3, 22, 24 July, 2 August 1930. Iris, bill and feet orange. Stomach pollen and flower buds. (Mostly in full moult.)

96. Charmosyna stellae goliathina Rothsch. & Hart.

Carmosyna stellae goliathina Rothschild & Hartert, *Nov. Zool.* xviii. p. 160 (1911) (Mt. Goliath).

The large series of 16 ♂♂ and 9 ♀♀ shows a slightly different proportion of the melanic form *atrata* : the Pratt brothers series consists of 8 normal birds and 4 *atrata*, whereas Shaw Mayer's series consists of 21 normal and 4 *atrata*. This at first sight appears an enormous difference, but when analysed proves less startling ; the Pratts' series contained 5 ♀♀, 3 ♂♂ normal and 1 ♂, 3 ♀♀ *atrata* ; Shaw Mayer's series consists of 16 ♂♂ normal, 4 ♂♂ *atratus* and 9 ♀♀ normal. Thus the Pratts' series showed a proportion of 1 in 3 *atratus* in an evidently picked series ; while Shaw Mayer's series of non-picked (many in moult) contains 20 ♂♂, of which 4 = $\frac{1}{5}$ are of *atratus*, a proportion probably the more real one in nature.

1 ♂ Mt. Derimapa, 5,000 ft., 26 June ; 2 ♀♀ Mt. Dewera, 6,000 ft., 25 June ; 10 ♂♂ ad., 1 ♂ juv. normal, 4 ♂♂ *atrata*, 4 ♀♀ ad., 2 ♀♀ juv. normal, Gebroeders, 5,000–6,000 ft., 25, 27, 28, 29 June, 1, 2, 3, 6, 10, 20, 24 July 1930. Iris orange, bill orange red, feet orange. Stomach contents pollen, very small seeds and flower buds. Yabi native name for normal form " Wesay " or " Wisay " ; of the *atratus* form " Jo-Ro-Ah." The natives declare that one black bird might be seen in a small flock of normal plumaged birds, or one paired with a normal bird, but they had never seen a black one paired with a black one.

97. Charmosynopsis pulchella pulchella (Gray).

Charmosyna pulchella G. R. Gray, *List Psitt. Brit. Mus.* p. 102 (1859–1860) (Arfak).

1 ♂, 1 ♀ Gebroeders, 6,000 ft., 20 and 30 July 1930. Iris in ♂ greenish yellow, in ♀ yellow, bill in ♂ light orange, in ♀ orange, feet of ♂ brownish flesh colour, of ♀ dull yellow.

98. Probosciger aterrimus goliath (Kuhl).

Psittacus goliath Kuhl, *Consp. Psitt.* p. 92 (1820) (in India Orientali).

1 ♂ Mt. Atoe, 2,000 ft., 22 July 1930. Iris dark brown, cheeks reddish flesh colour, bill and feet black. Stomach contents remains of nuts.

99. Loriculus aurantiifrons batavorum Stresem.

Loriculus aurantiifrons batavorum Stresemann, *Journ. Ornith.* 61, p. 602 (1913) (Snow Mts.).

1 ♀ Gebroeders, 5,000 ft., 12 August 1930. Iris blackish brown, bill black, feet yellowish brown. Stomach remains of flower buds.

100. Psittacella brehmii intermixta Hart.

Psittacella brehmii intermixta Hartert, *Nov. Zool.* xxxvi, p. 107 (1930) (Mt. Goliath).

One ♀ has the whole underside much more brilliant yellow than any of the 4 ♀♀ from Mt. Goliath and the ♀ from the Pratt brothers in the Tring Museum, and the black cross bars are narrower ; above this specimen (no. 157 Shaw Mayer) is also brighter yellow. I have compared Shaw Mayer's 4 ♂♂ and 2 ♀♀ with the Tring series of 5 ♂♂, 4 ♀♀ from Mt. Goliath (A. S. Meek) and 2 ♂♂, 1 ♀ from Mt. Kunupi (Pratt brothers), and with the exception of the ♀ mentioned above they agree perfectly. Unfortunately in my article on the Pratt brothers collection (Nov. Zool. xxviii, pp. 280–294 (1921)) I listed the 3 *Psittacella* under the wrong identification of *P. brehmii pallida* Meyer, which latter afterwards (1930) was discovered to be different and only to occur east of the Fly River. I have compared the above 18 specimens of *b. intermixta* (9 from Mt. Goliath and 9 from the Weyland Mts.) with 20 specimens of *b. pallida*, viz. 1 ♀ Ori-Ori Distr., Brit. N. Guinea, 2 ♂♂ Eafa Distr., Brit. N. Guinea, 5 ♂♂, 1 ♀ Mt. Cameron, Owen Stanley Range, 1 ♂, 1 ♀ Upper Aroa River, 2 ♂♂, 2 ♀♀ Owgarra, Angabunga River, 2 ♂♂, 3 ♀♀ Bihagi, Mambaré River, and the differences are quite constant.

2 ♂♂ ad., 2 ♂♂ jun., 2 ♀♀ ad. Gebroeders, 5,000–6,000 ft., 25 and 26 June, 1, 6, 11 July, 13 August 1930. Iris adult orange, young yellow, bill bluish grey, feet blackish grey. Stomach contents small hard seeds and berries.

101. Alisterus amboinensis stresemanni Neum.

Alisterus amboinensis stresemanni Neumann, *Ornith. Monatsb.* 35, no. 1, p. 17 (1927) (Lordberg).

Professor Neumann's Revision of the Genus *Alisterus* in the Proceedings of the VI Ornithological Congress is very exhaustive and the keys are very easy to work with. Shaw Mayer's 3 birds from north of the main range do not differ from Meek's Snow Mts. birds from the south side of the range.

1 ♂ ad., 1 ♂ fere ad., 1 ♂ juv. Gebroeders, 6,000 ft., 3, 28, 29 July 1930. Iris yellow, bill, basal half upper mandible orange red, apical half black, lower mandible black, feet blackish. Stomach small seeds and berries.

102. Ninox theomacha (Bp.).

Spiloglaux theomacha Bonaparte, *Compt. Rend. Acad. Sci. Paris*, xli, p. 654 (1855) (Triton Bay).

Mathews (*Syst. Av. Austr.* i. p. 273), under *Spiloglaux theomacha*, divides the species into two subspecies : *theomacha* B. and *terricolor* Ram. In looking up the 2 birds of Shaw Mayer's I compared them with the Tring Museum series of 14 skins from Waigeou, Arfak, Ambernoh River and various places in S.E. New Guinea. They are all alike, reddish chocolate above, rufous brown below, variegated on thighs and lower abdomen with yellowish cinnamon cloudings. One of Shaw Mayer's birds, no. 226, is also identical ; but the other, no. 202, has a much darker, more blackish, upperside and the breast is deep chocolate. Neither, however, nor the Tring series, agrees with Ramsay's *terricolor*, as that

is described as having wing and tail bars. I therefore continue to treat *theomacha* as an undivided species.

2 ♂♂ Mt. Derimapa, 5,000 ft., 21 and 25 July 1930. Iris golden yellow, bill greenish horn colour, tip pale horn, feet hairy greenish yellow. Stomach insects, beetles.

103. **Ninox dimorpha** (Salvad.).

Athene dimorpha Salvadori, *Ann. Mus. Civ. Gen.* vi, p. 308 (1874) (Sorong).

1 ♀ Gebroeders, 5,000 ft., 8 August 1930. Iris yellow, bill bluish horn colour, tip dark horn, feet yellow. Stomach large worm and remains of small mammal.

104. **Accipiter cirrhocephalus papuanus** Rothsch. & Hart.

Accipiter cirrhocephalus papuanus Rothschild & Hartert, *Nov. Zool.* xx, p. 482 (1913) (Snow Mts.).

The single ♂ sent has a very broad complete rufous collar on the hindneck, and is remarkably pale and grey below.

1 ♂ Mt. Derimapa, 5,000 ft., 26 July 1930. Iris bright yellow, bill black, cere greenish yellow, feet yellow.

105. **Ieracidea berigora novaeguineae** (A. B. Meyer).

Hieracidea novaeguineae A. B. Meyer, *Journ. Orn.* xlii, p. 89 (1894) (Eastern New Guinea).

1 ♂ Mt. Derimapa, 5,000 ft., 4 July 1930. Iris black brown, bill dark horn colour, naked skin round eye greenish yellow, feet greyish white.

106. **Henicopernis longicauda** (Garnot).

Falco longicaudus Garnot, *Voy. Coquille, Zool.* pl. x (1828), p. 588 (1829) (Woods of New Guinea; Type Dorey).

Shaw Meyer sent 3 very fine examples; they appear blacker than the dozen or so at Tring, but I believe the browner tinge is due to change from age of the skins.

1 ♂ Mt. Derimapa, 5,000 ft., 24 July; 2 ♀♀ Gebroeders, 5,000 ft., 2 and 21 August 1930. Iris bright golden yellow, bill light horn colour, tip dark horn, feet white, claws black. Stomach contained insects including ants and grasshoppers. Rare, one seen swooping low backwards and forwards over native gardens.

107. **Zonerodius heliosylus** (Lesson).

Ardea heliosylus Lesson, *Voy. Coquille, Zool.* pl. xliv (1828), p. 722 (1830) (New Guinea).

1 ♂ Siriwo River, 45 miles from mouth, south of Geelvink Bay, 14 June 1930. Iris yellow, naked space round eye greenish yellow, bill yellowish green, feet greenish yellow.

108. **Ptilinopus superbus superbus** (Temm.).

Columba superbus Temminck, in Temminck & Knip's *Pigeons*, p. 75, pl. xxxiii (1810) (Otaheiti errore ! !).

The two ♂♂ are remarkably different in coloration; in the Siriwo bird the hindneck and upper back are crimson saturated with purple and the black central spots of the scapulars and tertiaries are large and conspicuous, while

in the Mt. Derimapa bird the hindneck and upper back are fiery orange and the black central spots of the scapulars and tertiaries are much smaller and less distinct. Our Admiralty series are all like this latter, but birds from S.E. New Guinea show both colorations.

1 ♂ Siriwo River, 35 miles above mouth, south Geelvink Bay, 12 June; 1 ♂ Mt. Derimapa, 5,000 ft., 26 June 1930. Iris yellow, bill greenish grey, feet dark red.

109. **Ptilinopus rivoli bellus** Sel.

Ptilinopus bellus Sclater, *P.Z.S. London*, 1873, p. 696, pl. lvii (Hatam).

1 ♂ Mt. Derimapa, 5,000 ft., 19 July 1930. Iris orange, bill greenish yellow, feet maroon. Stomach fruits.

110. **Megaloprepia magnifica interposita** Hart.

Megaloprepia magnifica interposita Hartert, *Nov. Zool.* xxxvi, p. 114 (1930) (Wandammen).

The wing of this single ♂ measures 160 mm.

1 ♂ Siriwo River, 30 miles above mouth, south of Geelvink Bay. Iris orange red, bill greenish yellow, deep purple above nostrils, feet greyish green.

111. **Ducula chalconota** (Salvad.).

Carpophaga chalconota Salvadori, *Ann. Mus. Civ. Gen.* vi, p. 87 (1874) (Hatam).

The two females sent by Shaw Mayer are rather different, the one, no. 141, has the breast, chin and throat cinnamon in strong contrast to the bright rufous abdomen: while the other, no. 215, is much darker, the grey of head, neck and shoulders being much darker and the cinnamon of the breast being so dark as to be almost equal to the rufous of the abdomen: none of the specimens of the two drawers full we have at Tring are like this latter.

2 ♀♀ Mt. Derimapa, 5,000 ft., 4 and 24 July 1930. Iris reddish brown in no. 215, purplish red in no. 141, bill black, feet purplish red. Stomach large berries and fruits.

112. **Ducula zoeae** (Desm.).

Columba zoeae Desmarest, *Dict. Sci. Nat.* ed. Levrault, xl. p. 314 (1826).

1 ♀ Gebroeders, 5,000 ft., 26 June 1930. Iris red, bill dark horn, feet dark red.

113. **Columba (Gymnophaps) albertisi albertisi** Salvad.

Gymnophaps albertisi Salvadori, *Ann. Mus. Civ. Gen.* vi. p. 86 (1874) (Andai).

1 ♂ Gebroeders, 5,000 ft., 27 July 1930. Iris red, bare skin round eye red, bill whitish, region of and around nostrils red, feet pinkish.

114. **Macropygia nigrirostris** Salvad.

Macropygia nigrirostris Salvadori, *Ann. Mus. Civ. Gen.* vii, p. 972 (1876) (Arfak).

1 ♀ Mt. Derimapa, 5,000 ft., 21 July 1930. Iris yellow, bill brownish black, feet blackish red. Stomach hard berries and gravel.

115. Reinwardtoena reinwardtsi griseotincta Hart.

Reinwardtoenas reinwardtsi griseotincta Hartert, *Nov. Zool.* iii. p. 18 (1896) (Mailu District).

2 ♂♂, 1 ♀ ad. Gebroeders, 6,000 ft., 17, 29, 27 July 1930. Iris whitish with black and red circles, bare skin round eye crimson, bill maroon, tip horn colour, feet dark red. Stomach small hard seeds and gravel.

116. Gallicolumba jobiensis jobiensis (A. B. Meyer).

Phlegoenas jobiensis A. B. Meyer, *Mitth. Zool. Mus. Dresd.* i, p. 10 (1875) (Jobi Island).

1 ♂ Mt. Derimapa, about 4,000 ft., 12 July 1930. Iris dark brown, bill black, feet pinkish red. Stomach seeds.

117. Gallicolumba rufigula rufigula (Jacq. & Puch.).

Peristera rufigula Jacquinot & Pucheran, *Voy. Pôle Sud*, iii, p. 118 (1845) (New Guinea).

I have treated the 2 ♂♂ sent by Shaw Mayer as both belonging to the typical race, but they are so different that I feel sure, when we can compare a series from the Weyland Mts., we shall find that the bird from there represents a distinct race.

The bird from the Siriwo River has the chin, throat and abdomen white, the breast buffish yellow, lower flanks pale cinnamon, and a wing measurement of 123 mm. The bird from Mt. Derimapa has chin and upper throat buffish cinnamon, whiter in the centre and on chin, the whole breast and upper abdomen bright orange golden, lower abdomen and flanks cinnamon, wing 132 mm. I should have separated the latter now, but among our series at Tring is one somewhat intermediate in colour and several have wings over 130 mm.

1 ♂ Siriwo River, 40 miles above mouth, south of Geelvink Bay, 13 June 1930. Iris dark brown, bill reddish, tip horn colour, feet brick red. 1 ♂ Mt. Derimapa, 4,000 ft., 1 August 1930. Iris brown, feet purplish. Stomach hard seeds. Shot on ground.

118. Goura cristata cristata (Pall.).

Columba cristata Pallas, in Vroeg's *Catal. Adumbr.* p. 2 (1764) (Banda !).

The names given by Pallas in Vroeg's *Catalogue* are now generally accepted by ornithologists. Therefore I quote the single ♂ sent by Shaw Mayer under the name of *cristata* instead of the familiar *coronata* of Linnaeus.

1 ♂ Siriwo River, 35 miles inland, 500 ft., south of Geelvink Bay, 16 June 1930. Iris red, bill grey, tip horn colour, feet reddish purple. Stomach contained large hard seeds and a granite stone 1 inch by ½ inch.

119. Rallicula rubra klossi O. Grant.

Rallicula klossi Ogivie Grant, *Bull. B.O.C.* xxxi, p. 104 (1913) (Utakwa River).

When the late Mr. Ogilvie Grant described *r. klossi* he had no *r. rubra* in the British Museum for comparison and therefore compared it with *r. forbesi*. When therefore I was listing the Mt. Kunupi, Weyland Range, birds of the Pratts and found I had a ♀ *r. klossi*, on comparing the figure of ♂ *klossi* with *r. rubra* ♂, I came to the conclusion they were the same and that the ♀ *klossi* was the unknown ♀ of *r. rubra*. When Dr. Hartert was writing the list of Dr. Ernst Mayr's birds last year we still were of opinion that *r. rubra* and *r. klossi* were one and the same bird ; but on going into the question again with Shaw Mayer's ♀ I have

changed my opinion. When Dr. Ernst Mayr was here three weeks ago, he saw Shaw Mayer's bird and mentioned that he had come to the conclusion that *r. klossi* was not identical with *r. rubra* and that the ♀ of *r. rubra* was still unknown. On thoroughly comparing the Pratts 1 ♂, 1 ♀ and Shaw Mayer's ♀ with the 2 Arfak ♂♂ of *r. rubra*, I find differences and must reinstate *r. klossi* as a valid subspecies of *r. rubra*.

♂ differs from *r. rubra* ♂ in the almost obsolete white patches on the inner webs of the primaries, which are large and conspicuous in *r. rubra*. The two females of *r. klossi* show no differences *inter se*.

1 ♀ Adimo River, 4,000 ft., Gebroeders, 10 August 1930. Iris brownish yellow, upper mandible black, lower horn colour, feet blackish.

120. Talegallus jobiensis jobiensis A. B. Meyer.

Talegallus jobiensis A. B. Meyer, *Sitzungsb. Ak. Wiss. Wien*, lxix, p. 74 (1874) (Jobi Island).

1 ♂ ? pull. Mt. Derimapa, 5,000 ft., 25 July 1930. Iris brownish, bill, upper mandible black, lower orange, tip horn colour, feet dark orange.

In concluding this list of one hundred and twenty distinct species and subspecies, I must heartily congratulate Mr. Shaw Mayer on the admirable labelling and very full data of both his birds and mammals.

PLATE III.

Length of bill measured in a straight line from the anterior margin of the nostril to the apex of the bill.

Fig. 1. *Epimachus fastosus stresemanni* (type), Schrader Berg ; bill 66 mm.
,, 2. *Epimachus fastosus fastosus*, Arfak (E. Mayr coll.) ; bill 58 mm.
,, 3. *Epimachus fastosus fastosus*, trade skin ; bill 60 mm.
,, 4. *Epimachus fastosus atratus*, Wandammen (Shaw Mayer coll.) ; bill 57 mm.
,, 5. *Epimachus fastosus atratus*, Weyland Mts. (Pratt Bros. coll.) ; bill 59 mm.
,, 6. *Epimachus meyeri albicans*, Weyland Mts. (Shaw Mayer coll.) ; bill 79 mm.

(In the specimen of *E. meyeri meyeri* figured on Plate IV the bill measures 74 mm.)

PLATE IV.

Fig. 1. *Epimachus fastosus atratus* (type), Mt. Goliath.
,, 2. *Epimachus meyeri meyeri*, Mt. Victoria, Brit. New Guinea.

To show the difference in the size of the ornamental breast plumes, the anterior features being much larger in *E. fastosus* than in *E. meyeri*.

In *Ep. meyeri meyeri* and *Ep. m. albicans* it is thus shown that in the adult ♂♂ the bills are much longer and thinner than in any of the races of *Ep. fastosus*. Among the birds referred by Dr. Hartert and myself to *Ep. fastosus atratus* the ♀♀ and ♂♂ juv. from Mt. Goliath, the type locality, have the outer webs of the primaries rust red and the secondaries entirely olive brown, while those from the Weyland Mts. have the outer webs of the secondaries also rust red. I should not hesitate to separate the Weyland birds, but in 3 ♀♀ from Wandammen the amount of rust red is variable ; therefore I prefer to await further Weyland material before going definitely into the question.

Hilda Jordan photo.

Repr.: Star Illus. Ltd., London, W.

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Hilda Jordan photo. Repr., Star Illus. Ltd., London, W.